

## 1    **ABSTRACT**

2            A multi-window vehicular monitoring system has a data collection  
3 assembly, a console unit and multiple video cameras. The data collection  
4 assembly uses RF signal transmission to send distance data, and the console unit  
5 is further connected to a monitor and several video cameras. The system  
6 employs an image overlay controller to correlate the distance data and images to  
7 produce single-channel or multiple-channel video signals. With a continuous  
8 display of video images from all angles and constantly updated distance data, the  
9 vehicle driver becomes more aware of conditions around the vehicle at any given  
10 time. Thus no blind spots exist for the driver around the vehicle. Using such a  
11 monitoring system, a driver's visibility and safety can be considerably enhanced  
12 under all driving conditions.